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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,088	06/28/2001	Carl M. Ellison	42390P11770	9497

8791 7590 09/18/2006

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EXAMINER

SHIFERAW, ELENI A

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/896,088

Applicant(s)

ELLISON ET AL.

Examiner

Eleni A. Shiferaw

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 19-34 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 12-17 and 34 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 19-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No: \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. It has been noticed that the Appellant has filed **unsigned** Appeal Brief on 12/27/2005 and also the brief contains **non-argued or non-withdrawn** claims, which are claims 27-29.

Appellant is required to comply with MPEP 1204 [R-3]-I and 1205 [R-3]-iii.

2. In view of the Appeal Brief filed on December 27, 2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

*Response to Appellant's Arguments*

*A. Argument with respect to claims 1-11 and 30-33.*

The appellant's first argument concerns Ohashi et al. reference failure to disclose “generating a key hash result partially based on a global identifier of a source and an estimated current time at the source” page 6 par. 1 of the Appeal Brief. The examiner respectfully disagrees with the appellant's contentions and would like to draw the Appellant's attention to col. 4 lines 51-57, abstract, fig. 7 No. 703, and col. 7 lines 60-col. 8 lines 8 wherein Ohashi et al. discloses a time varying public key generated based on identification data and varying time at which kpn is generated and the time varying public key is hashed using one way function.

As per appellant's argument concerning Ohashi et al. failure to teach the feature of “*the time varying public key not being a key hash result*, page 6 par. 2”. The examiner respectfully disagrees with the appellant's contentions because Ohashi et al.'s time varying public key is hashed using a one-way hash function and time varying public key is a key hash result (see, col. 5 lines 55-67 and col. 8 lines 1-8).

As per Appellant's argument concerning Ohashi failure to teach the feature of “*time-varying public key not being based on a global identifier of a source and estimated current time at the source*, page 6 par. 2”, Argument is not persuasive. Ohashi et al.'s time-varying key is based on identification data and time-varying public key generation time at the source that changes in a predetermined time interval (see col. 7 lines 25-65).

Appellant concerns that Ohashi et al. fails to teach the features of “presenting the first time-varying item for **sensory comparison** with a second time-varying item being presented at the source, page 6 par. 3”. The Examiner disagrees with the Appellant's contention. Ohashi et al.

discloses comparing the first time varying item generated at the mobile station i with second time-varying item received and sensed at the mobile station i. i.e.  $S_i$  is compared with P (fig. 6 element S610). Appellant fails to provide a definition of “sensory” comparison in the discloser when claims are amended and word “sensory” comparison is included in the claims.

**B. Argument with respect to claims 13 and 34.**

Appellant’s arguments regarding claims 13 and 34 and all dependent claims to claim 13 are persuasive and claims are allowed.

**C. *Argument with respect to claims 19-26.***

The appellant's argument concerns Ohashi et al. reference failure to disclose “*generating a key hash result partially based on a global identifier of a source and an estimated current time at the source*” page 6 par. 1 of the Appeal Brief. The examiner respectfully disagrees with the appellant's contentions and would like to draw the Appellant's attention to col. 4 lines 51-57, abstract, fig. 7 No. 703, and col. 7 lines 60-col. 8 lines 8 wherein Ohashi et al. discloses a time varying public key generated based on identification data and varying time at which kpn is generated and the time varying public key is hashed using one way function.

As per Appellant's argument concerning Ohashi failure to teach the feature of “*time-varying public key not being based on a global identifier of a source and estimated current time at the source, page 6 par. 2*”, Argument is not persuasive. Ohashi et al.’s time-varying key is based on identification data and time-varying public key generation time at the source that changes in a predetermined time interval (see col. 7 lines 25-65).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites a “method” claim in line 1 and claim 27 recites a “network” claim in line 1. There is insufficient antecedent basis for claim 29 to be dependent to claim 27.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-11, 19-23, and 27-29 rejected under 35 U.S.C. 102(b) as being anticipated by Ohashi et al. 5,889,861.

***(Claims were previously rejected under 35 USC § 103(a)).***

As per claim 1 Ohashi teaches a method comprising:

(a) generating a key hash result partially based on a global identifier of a source and an estimated current time at the source (Ohashi col. 4 lines 51-57, abstract, fig. 7 No. 703, and col. 7 lines 60-col. 8 lines 8; *time varying public key is generated based on identification data and varying time at which kpn is generated and the time varying public key is hashed using one way function*);

(b) producing a first time-varying item based on the key hash result (Ohashi col. 7 lines 39-43 and fig. 6 element S608; *time-varying item (time-varying ID) is generated whenever the time-varying public key is updated in a predetermined time interval*); and

(c) presenting the first time-varying item for sensory comparison with a second time-varying item being presented at the source (col. 7 lines 39-50 and fig. 6 element S609; *time varying ID is presented for comparison*).

As per claim 19, Ohashi teaches a computing unit comprising:

a casing (Ohashi Fig. 3 No. 31-33);

an input/output (I/O) interface (Ohashi col. 6 lines 28-41);

a device that provides sensory data for a user, the device being integrated into the casing (Ohashi col. 5 lines 5-12); and

internal circuitry contained within the casing and controlling information presented by the device, the internal circuitry to generate a key hash result based on a global identifier of a

source and an estimated current time at the source (Ohashi col. 4 lines 51-57, abstract, fig. 7 No. 703, and col. 7 lines 60-col. 8 lines 8; *time varying public key is generated based on identification data and varying time and the time varying public key is hashed using one way function*).

As per claim 27, Ohashi teaches a network comprising:

a first computing unit (*network base station*) to (i) transmit successive verification packets each including a static global identifier and a varying local time value realized at the first computing unit during formation of that verification packet (fig. 6 element S604 and col. 7 lines 28-38; *plurality time-varying public key (kpn) is generated at the network station and broadcasted to mobile station i with identity information and varying-time data that identifies what time the kpn is generated*), (ii) generate successive first time-varying items based on contents provided within their corresponding verification packet (col. 7 lines 38-43 and fig. 6 element S608; *plurality time-varying IDs are generated in a predetermined time interval*), and (iii) present the first time-varying items in successive fashion (col. 7 lines 38-44 and fig. 6 element S609); and

a second computing unit (*mobile station i*) to (i) receive each verification packet (fig. 6 element S604), (ii) compute a clock skew to determine a time difference between the first computing unit and the second computing unit in response to receipt of a first verification packet (col. 7 lines 25-60; *plurality of kpn are generated in a predetermined time interval and kpn are transmitted to the mobile station i, mobile station i generates data (Si), based on received*



*verification data (identity info. and time kpn generated), to be compared with a data (P) that is generated and transmitted from network base station to mobile station and at the mobile station, the time difference between the P receipt time and local time is computed in order to generate Si and compare Si with P), (iii) generate successive second time-varying items based on contents provided by the corresponding verification packet (fig. 6 element S605; Si generated based on kpn info), and (iv) present the second time-varying items for sensory comparison with the first time-varying items (fig. 6 element S610).*

As per claim 2, Ohashi the method, wherein the presenting of the first time-varying item is contemporaneous with presentation of the second time-varying item if the global identifier of the source is accurately received and the current time at the source has been accurately estimated (fig. 6 element S610).

As per claim 3, Ohashi the method, further comprising:

(d) repeating (a), (b) and (c) for each subsequent presentation of a newly produced first time-varying item and comparison of the newly produced first time-varying item with a newly produced and presented second time-varying item (col. 7 lines 25-60).

As per claim 4, Ohashi teaches the method, wherein prior to generating the key hash result, the method further comprises:

receiving a verification packet from the source, the verification packet including the global identifier of the source and a local time value at which the verification packet was formed at the source (fig. 6 element S604; *kpn transmitted is generated based on identification data and varying time at which kpn is generated*).

As per claim 5, Ohashi teach the method, wherein the verification packet further includes a table inclusive of items displayed as the first time-varying item and the second time-varying item (Ohashi col. 5 lines 27-37 and claim 1).

As per claim 6, Ohashi teaches the method, wherein the verification packet further includes a data field to contain information to be transferred (Ohashi col. 5 col. 5 lines 32-37).

As per claim 7, Ohashi teaches the method, wherein the information includes a lookup table for selection of the item to be presented (col. 5 lines 5-20).

As per claim 8, Ohashi teaches the method, wherein the verification packet further includes a digital signature of contents of the verification packet (col. 5 lines 55-67).

As per claim 9 Ohashi teaches the method, wherein the generating of the key hash result further comprises

computing a clock skew by recording a receipt time upon which the verification packet is received and computing a time difference between the receipt time and the local time value (col. 7 lines 25-60);

computing the estimated current time at the source corresponding to a current time at a destination based on the clock skew (fig. 6); and

performing a cryptographic hash operation on a combination of at least the global identifier and the estimated current time to generate the key hash result (col. 7 lines 25-60).

As per claim 10, Ohashi teaches the method, wherein the producing of the first time-varying item includes accessing an entry of a lookup table using the key hash result and recovering contents of the entry as the first time-varying item (claim 2).

As per claim 11, Ohashi teaches the method, wherein the presenting of the first time-varying item for sensory comparison comprises displaying the first time-varying item contemporaneously with a display of the second time-varying item for visual comparison (fig. 6 element S610).

As per claim 20, Ohashi teaches the computing unit, wherein the internal circuitry is a memory and a processor accessing information from the memory (col. 6 lines 28-41).

As per claim 21, Ohashi teaches the computing unit, wherein the I/O interface is an antenna to receive signals from the source and provide the signals to the internal circuitry for processing (Ohashi Fig. 3 No. 31-33).

As per claim 22, Ohashi teaches the computing unit, wherein the I/O interface to receive a verification packet including at least the global identifier and a local time value at which the verification packet was formed prior to transmission to the computing unit (fig. 6 element S604).

As per claim 23, Ohashi teach the computing unit, wherein the internal circuitry generates the key hash result based on the global identifier, the estimated current time at the source and data contained in a data field of the verification packet (col. 5 lines 55-67).

As per claim 28 Ohashi et al. discloses the network, wherein the first computing unit communicates with the second commuting unit over a wireless link (fig. 3).

As per claim 29 Ohashi et al. discloses the method, wherein verification that the second computing unit has received the global identifier of the first computing unit when the second time-varying items are presented and changed contemporaneously with the first time-varying items (fig. 6).

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 24-25, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. 5,889,861 in view of Asano et al. Pub. No.: US 2003/0095664 A1.

As per claim 24, Ohashi teaches all the subject matter as described above. Ohashi fails to disclose displaying time-varying images. However Asano et al discloses an audio or video content data that is encrypted using a time varying key and displaying the time-varied encrypted audio/video by deciphering using time-varying decrypting key (par. 124 and 155-157) that reads on the computing unit, wherein the device is a display screen that displays the information being time-varying images.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the displaying of time-varying audio/video data of Asano et al. within the time-varying item of Ohashi et al. to alert the user if the key is verified or not either by looking at the screen or just listening the verified sound. One would have been motivated to do so because it would inform disabled people (people with visual impairments) by listening and/or inform for someone who lacks sense of hearing.

As per claim 25, Ohashi teaches all the subject matter as disclosed above. Ohashi fails to disclose a speaker that playback audible sounds which vary in time. However Asano et al. discloses an audio or video content data that is encrypted using a time varying key and displaying the time-varied encrypted audio/video by deciphering using time-varying decrypting key (par. 124 and 155-157) that reads on the computing unit, wherein device is at least one speaker that playback audible sounds which vary in time based on a value of the key hash result.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the displaying of time-varying audio/video data of Asano et al. within the time-varying item of Ohashi et al. to alert the user if the key the correct key or not just listening the verified sound. One would have been motivated to do so because it would inform disabled people (people with visual impairments) by listening.

As per claim 30, Ohashi et al. teaches the method, wherein producing of the first time-varying item comprises accessing bits of at least a portion of the key hash result to determine horizontal or vertical orientation of the first time-varying item being a displayable image (0030, 0124, and 0157). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Asano within the system of Ohashi et al. because it would access the time varying key of Asano and decrypt to determine position orientation of the video data to display.

As per claim 31, Ohashi et al. teaches the method, wherein producing of the first time-varying item comprises accessing bits of at least a portion of the key hash result to determine one or more selected colors of the first time-varying item being a displayable image (0030, 0124, and 0157). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Asano within the system of Ohashi et al. because it would access the time varying key of Asano and decrypt to determine the color of the video data to display.

As per claim 32, Ohashi et al. teaches the method, wherein producing of the first time-varying item comprises accessing bits of at least a first portion of the key hash result to a type of musical note of the first time-varying item being an audible sound (0030, 0124, and 0157). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Asano within the system of Ohashi et al. because it would access the time varying key of Asano and decrypt to determine musical note of the audio data to render.

As per claim 33, Ohashi et al. teaches the method, wherein producing of the first time-varying item further comprises accessing bits of at least a second portion of the key hash result to determine one of a duration, a meter rate or an octave change of the audible sound (0030, 0124, and 0157). The rational for combining is the same as claim 32 above.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. 5,889,861 in view of Engler 4,033,053.

As per claim 26, Ohashi fails to teach producing Braille patterns. However Engler discloses a computing unit, wherein device is at least a tactile device that produces Braille patterns which vary in time based on a value of the key hash result (col. 1 lines 6-9 and claim 1). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Engler within the system of Ohashi et al. to display embossed Braille patterns. One would have been motivated to do so because it would help people, who are unable to see displayed result of Ohashi's time varying identification item, to understand.

***Allowable Subject Matter***

9. Claims 13-17 and 34 are allowed.
10. Claim 12 is objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims,

The prior arts Ohashi et al. (USPN 5,889,861), Asano et al. Pub. No.: US 2003/0095664 A1, and Engler 4,033,053 do not disclose producing a successive images varied after each selected time interval for display on a display screen of the computing unit, a first time-varying image of the successive images being based on a first key hash result and producing a successive audible sounds varied after each selected time interval for playback over speakers of the computing unit,



a first time-varying audible sound of the audible sounds being based on a first key hash result of the key hash results.

*Conclusion*

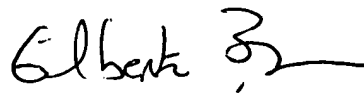
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eleni Shiferaw

September 6, 2006

  
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